

**ABSTRACT OF THE DISCLOSURE**

A method for testing the allergenicity of a heterologous protein produced by a plant genetically modified to produce that protein. The method includes the steps of: (a) sensitizing a newborn dog with a first extract from the genetically modified plant containing a mixture of plant proteins and the heterologous protein; (b) after a sufficient period allowing the dog to establish an immune response to the sensitizing extract, challenging the dog with the extract; (c) observing the degree of allergic response provoked; (d) if an allergic reaction is observed, comparing the degree of allergic reaction observed with that observed by carrying out steps (a)-(c) above with a second extract containing substantially the same proteins as the first extract but lacking the heterologous protein; and (e) if the degree of allergic reaction at (c) is greater than that observed with step (d), identifying the heterologous protein as a potential allergen in humans.